



DATE: August 9, 1985

TO: Land Division File

FROM: Rick Lanham, DLPC/FOS, Central Region  
*RL by DJS*

SUBJECT: LPC #1671205008 - Sangamon County  
Springfield/Fiat Allis  
ILD #067406280

An Interim Status Standards (RCRA) inspection was conducted at this facility on August 9, 1985, from 1:30 P.M. to 3:50 P.M. This facility manufactures heavy construction equipment. Mr. Hurley Ballenger, Acting Plant Engineer, and Mr. Wayne Woelke, Manager of Plant Engineering, were interviewed. This facility was determined to be a TSD (storage). This facility is storing electroplating wastes, F007.

A previous inspection of this facility on November 13, 1984, had determined that apparently no hazardous waste had been generated since April 11, 1984. At that time, Mr. Ballenger stated that Fiat-Allis had only three non-hazardous waste streams: (1) grinding sludge (2) emulsion oil, and (3) an aqueous paint sludge.

However, on May 9, 1985, an investigation was conducted by William Zierath (DLPC/FOS) and this author, in response to a complaint alleging the on-site disposal of toxic and hazardous wastes, PCB's and Cyanides, respectively.

During the investigation of May 9, 1985, and the ISS inspection of this date (August 9, 1985), Mr. Woelke stated that cyanide was used in the electroplating of copper to gears and pinions. Mr. Woelke and Mr. Ballenger stated that electroplating line, and the overflow pit and sump, had not been mentioned during the previous inspection of November 13, 1984, because the process generated no waste. Also, Mr. Ballenger stated that the electroplating line had been in operation for approximately 30 years.

Bill Zierath and I stated to Mr. Ballenger and Mr. Woelke, that to the best of our knowledge, electroplating usually generates a hazardous waste water and sludge (F007), especially when cyanide is used.

During the May 9, 1985, investigation we tried to ascertain if indeed hazardous wastes containing cyanide were disposed of on-site. Although no obvious on-site disposal was determined, a soil sample was taken from an area outside the building (Building #1, Attachment #1) containing the plating line, pit and sump. Also, we requested that Fiat Allis have the plating line, pit and sump analyzed for hazardous waste characteristics. At the time of investigation of May 9, 1985, the plating line was being used infrequently, according to Mr. Ballenger.

The Agency received from Fiat-Allis, on July 17, 1985, a letter dated July 16, 1985, and analyses reports on the contents of 4 of 5 plating line tanks (see Attachment #2). The following analyses results of the individual tanks are as follows:

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1. Acid Tank; approx. 150 gal.
  - (a) pH 5.1
  - (b) Total Cyanide 23 mg/kg
2. Plating tank #1; approx. 260 gal.
  - (a) pH 10.4
  - (b) Total Cyanide 566 mg/kg
3. Plating tank #2; approx. 260 gal.
  - (a) pH 10.7
  - (b) Total Cyanide 1090 mg/kg
  - (c) E.P. Toxicity, Cadmium 3240 mg/l
4. Plating Rinse tank; approx. 150 gal.
  - (a) pH 8.8
  - (b) Total Cyanide 23 mg/kg
  - (c) E.P. Toxicity, Cadmium 3.32 mg/l
5. The caustic tank was not sampled.

On August 7, 1985, Mr. Roy Frazier was contacted at the IEPA Champaign Laboratory, in regards to soil sample taken during the investigation of May 9, 1985. The results of the soil analysis are as follows (see Attachment #3):

1. Total Cadmium 227 mg/kg
2. Total Chrome 72 mg/kg
3. Total Copper 600 mg/kg
4. Total Cyanide 12 mg/kg
5. Total Mercury 0.049 mg/kg

It would appear that the results of the soil sample analysis indicate that contamination to the soil resulted from the removal, at some previous point in time of plating line and/or the plating pit and sump contents, to the area east of and outside of the building (Building #2) containing the plating line.

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Taking into consideration the following: (1) the plating line vat contents will be a hazardous waste once operations cease on approximately September 1, 1985, (2) the soil in the general area of the plating line appears to be contaminated with metals and cyanide, (3) the content of the plating line pit and sump are considered to be hazardous per F007, and (4) the impending total shut down of the Fiat Allis plant and the possibility the various chemicals may be generated as a hazardous waste (i.e. spent solvents from the cleaning of the paint booths, the plating line contents), it was considered prudent to inspect this facility.

The plating line pit and sump analysis was received by the IEPA on August 9, 1985, the date of the inspection (see Attachment #4). Although this analysis appears to indicate the liquids from the sump are not hazardous, 35 ILL. Adm. Code 721.131 (Hazardous Waste From Nonspecific Sources) includes this type of waste as listed generic hazardous waste #F007.

During the August 9, 1985, ISS inspection, Mr. Woelke and Mr. Ballenger explained that the majority of the heavy construction equipment production had ceased on August 1, 1985, however, the contract did not expire officially until October 1, 1985. I explained to Mr. Woelke and Mr. Ballenger that the plating line sump liquid sludge was considered hazardous, F007. Also I explained that the facility had to transport off-site all hazardous wastes, especially the plating line tank waste that were analyzed as hazardous wastes, within 90 days so as not to violate again the allowable storage time limit as detailed in 35 ILL. Adm. Code 722.134(a).

Also, I inquired as to what guidelines Mr. Ballenger had followed in sampling the plating line sump waste. Mr. Ballenger stated that no instructions of representative sampling were forwarded to him from either Andrews Environmental Engineering Inc. (Spfld., IL) or from TEKLAB (Collinsville, IL). Previously the length and width of the plating line overflow pit and sump had been determined to be approximately 36 ft. by 7.75 ft.

Mr. Ballenger stated that during the sampling he had determined the depth of the pit and sump to be approximately 6 - 8 inches. Using the formula of  $36 \times 7.75 \times .5$  to get 139.5 cu. ft. and the conversion factor of 7.48 to determine gallons, the amount of F007 waste would be approximately 1043.46 gallons. I explained to Mr. Ballenger and Mr. Woelke that the area surrounding the contaminated soil had to be extensively sampled by an engineering firm (Andrews Environmental Engineering) to determine the extent of contamination and that all contaminated soil had to be properly removed.

During the plant inspection, Mr. Ballenger stated that one of the twin plating tanks, apparently Plating Tank #2, had mysteriously lost all but a few gallons of approximately 260 gallons. The 260 gallons of plating line solution had a pH 10.7, total Cyanide of 1090 mg/kg and the E.P. Toxicity for Cadmium was 3240 mg/l. Mr. Ballenger's explanation for this disappearance was that a heating element had been left on and caused the evaporation of approximately 250 of the 260 gallons. However, the other 260 gal. tank, separated from the empty tank by a shared, metal tank wall, still contained approximately 200 gallons of liquid. An examination of the plating line tanks found no apparent leak.

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Also noticed throughout the facility were sumps containing oil. These sumps were obvious now because the machinery had all been removed. I inquired as to how much waste oil was generated per month. Mr. Ballenger stated that 5,000 to 10,000 gallon of waste oil was generated every 6 months. However, the rate of generation would increase due to closure and then cease. Mr. Ballenger stated that the waste oil was transported off-site by Gateway Oil (St. Louis) using multistop manifests. I explained to Mr. Ballenger that the waste oil had to be analyzed for possible hazardous characteristics and that Fiat Allis had to manifest it.

A list of all products and wastes such as solvents, oils, paints, acids, caustics, metals, and cyanide that are used in or generated from manufacturing processes was requested. I explained to Mr. Ballenger that Fiat Allis' chemicals used in the manufacturing process could become wastes after closure, i.e. the plating line chemicals, the cleaning of paint guns and lines with solvents and any chemicals (products) that were not sold but were to be disposed of (acids, caustics, solvents). According to Mr. Ballenger, this facility also has on-site, a below ground 5,000 gallon, leaded gasoline storage tank. I stated that any possible sites of soil contamination due to oil or other chemical spills would have to be removed.

The following apparent violations were observed:

- |                  |                |
|------------------|----------------|
| 1. 703.150(a)(4) | 11. 725.151(a) |
| 2. 722.111       | 12. 725.155    |
| 3. 722.134(b)    | 13. 725.173    |
| 4. 725.113(a)    | 14. 725.175    |
| 5. 725.113(b)    | 15. 725.212(a) |
| 6. 725.114(c)    | 16. 725.294    |
| 7. 725.115(b)    | 17. 809.301    |
| 8. 725.116(a)    | 18. 725.292(c) |
| 9. 725.116(d)    | 19. 725.298(a) |
| 10. 725.137      |                |

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Sangamon County

LPC

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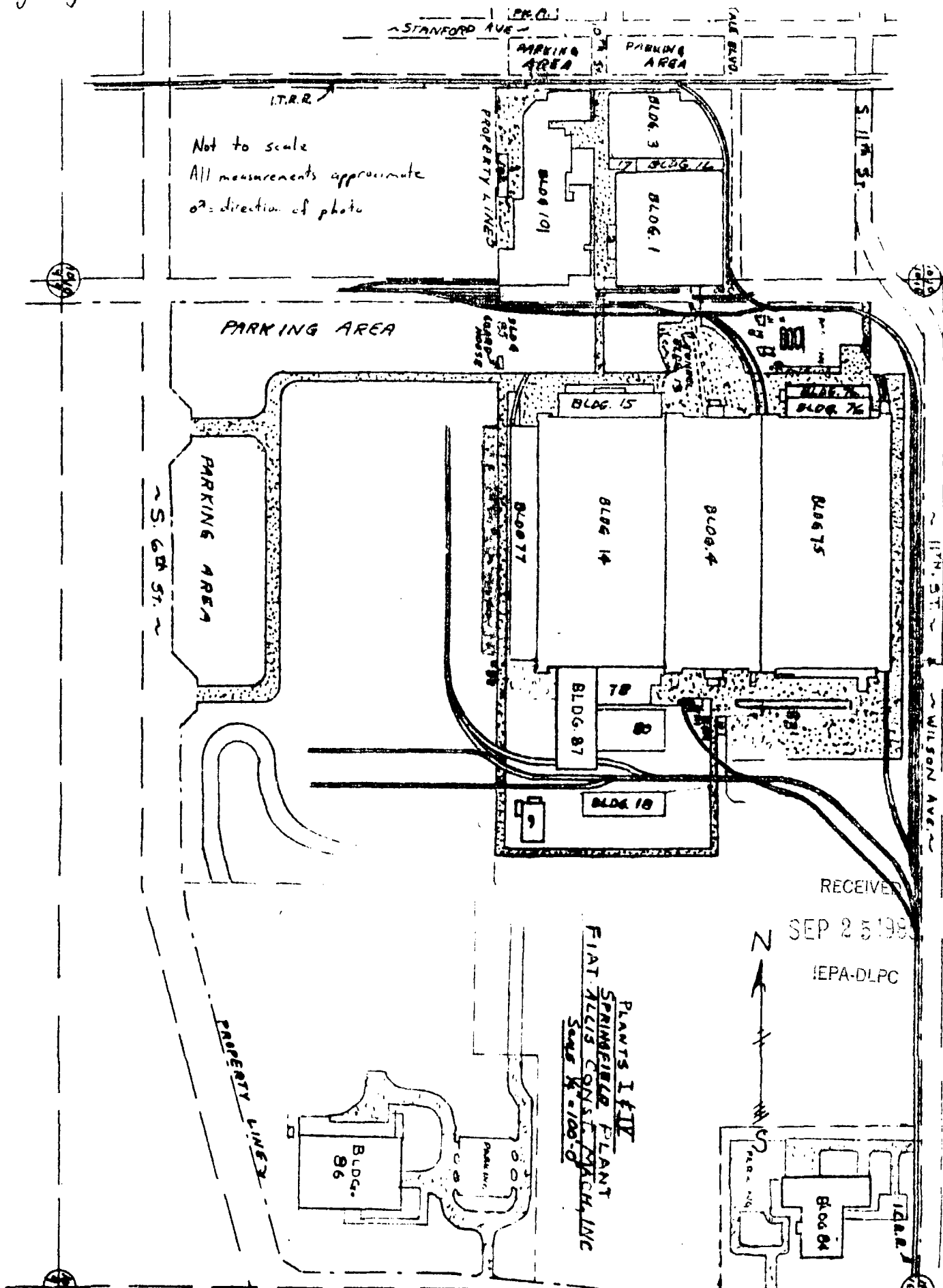
DATE: Aug 9 1985

Springfield

1 Fiat - Allis

TIME: 1:30 - 3:50 PM

Not to scale  
All measurements approximate  
az = direction of photo



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PLANTS I & II  
SPRINGFIELD PLANT  
FIAT-ALLIS CONSTRUCTION, INC  
Sangamon Co. - 100-0

Bldg. 96

Bldg. 84

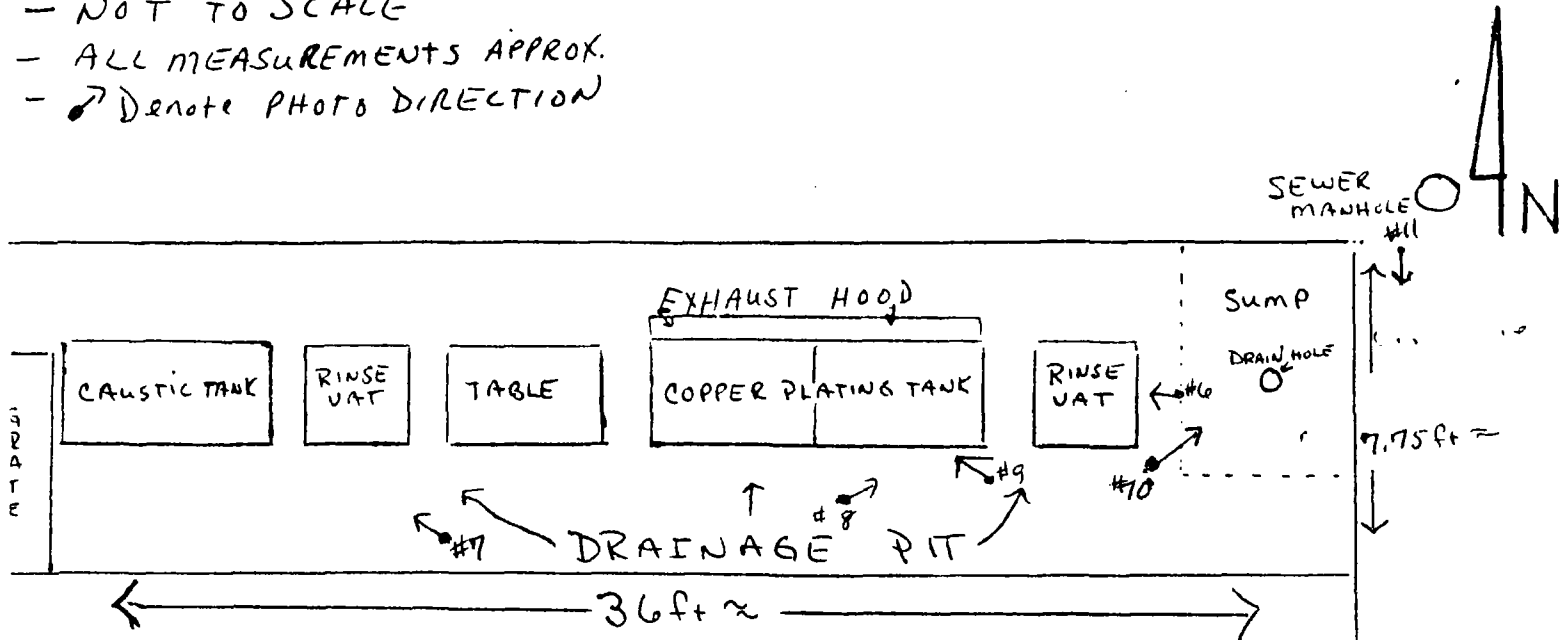
SANGAMON Co. - LPC 1671205008

DATE: 8-9-85

Springfield / Fiat Axis

TIME: 1:30-3:50 PM

- NOT TO SCALE
- ALL MEASUREMENTS APPROX.
- ⤴ Denote PHOTO DIRECTION



BUILDING # 1

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